



URETHANE POLYMER CONCRETE MF | EZ

Meet Installation Demands at Any Skill Level

KRETUS® URETHANE POLYMER CONCRETE MF | EZ is an easy-to-apply 100%-solids, 3-component medium-fill self-leveler. When application temperatures are high, use it to protect areas that are prone to hot and cold industrial power washing, high abrasion, extreme temperatures, and aggressive chemical and thermal attacks. Urethane Polymer Concrete (UPC)

ADVANTAGES

- Meets USDA, FDA, EPA, and SCAQMD Standards
- Eligible for LEED Points: Made in California from Partially Recycled Materials
- Adhesion to Concrete, Wood, Metal, Non-glazed Tiles
- Antibacterial
- Easy Installation
- High Impact Resistance
- Low Maintenance
- Low Odor
- Long Working Time
- Moisture Vapor Resistance (up to 25 pounds MVER and 99% RH)
- Self-priming Cementitious Urethane
- Thermal Shock Resistance
- Waterproofing

SUGGESTED USES AND APPLICATION AREAS

- Concrete Patching and Crack Repair
- Seamless Moisture Mitigation
- Slurry, Mortar, and Decorative Systems
- Industrial, Healthcare, Commercial, Government, Institutional, and Residential

KRETUS® SYSTEMS

- Color Quartz
- Industrial Sand
- UPC 1-Coat

For all KRETUS® systems, see kretus.com/systems.

FINISH AND COLOR

- Matte Opaque With or Without Pigment

See kretus.com/color-charts.

PRECAUTIONS AND LIMITATIONS

- **UV Resistance:** Coating will amber over time. If color stability is important, use UV-stable Urethane Polymer Concrete RC UV, Polyurethane, Polyaspartic, or Acrylic Sealer. See kretus.com/products.
- **Prime Coat:** A prime coat may be required when stem walls are highly absorbent, if outgassing is suspected or prevalent, or if concrete is very porous or in poor condition. All concrete repairs must be completed before installing any system.
- Do not let material puddle on floor. This may cause white spots to appear when coating cures.
- Complete samples and onsite mockups to ensure desired results are achieved.
- **Application temperatures:** When temperatures increase, material cures faster. Material cures slower when temperatures decrease.

- Apply material when temperature is decreasing—adhere to the KRETUS® Dew Point Calculation Chart available at kretus.com/project-planning. DO NOT apply under direct sunlight. DO NOT install under inclement weather conditions.
- If application temperatures are outside of those recommended, contact your KRETUS® Technical Representative.
- Application times are based on test results compiled by lab technicians in a controlled setting. All times recorded using 1-quart samples.
- Coverage rates are for estimating purposes only. Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer.
- For best results, apply when application temperatures and relative humidity are high.

COMPONENTS

Standard Kit

- Part A: Urethane Polymer Concrete SL/MF, 8 lbs.
- Part B: Urethane Polymer Concrete SL/MF EZ, 8 lbs.
- Part C: Urethane Polymer Concrete MF, 40 lbs.

Bulk Kit

- Part A: Urethane Polymer Concrete SL/MF, 16 lbs.
- Part B: Urethane Polymer Concrete SL/MF EZ, 16 lbs.
- Part C: Urethane Polymer Concrete MF, 80 lbs.

Larger kits may be available through KRETUS® distributor.

SAFETY, TESTING, AND WARRANTY

- **Safety:** Personal protective equipment and safety conditions must be considered before using any product. Review all relevant and current documentation including Safety Data Sheets (kretus.com/safety-data-sheets).
- **Testing:** Before installation: Test and look for any unknown site conditions and/or defects. To ensure desired results are achieved, the system should be tested in a small area on site before full installation begins.
- **Warranty:** For warranty to be upheld, Pre- and Post-Job Checklists (kretus.com/project-planning) must be completed.

STORAGE AND APPLICATION TEMPERATURES

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|--|--------------------------------------|
| Ideal Storage Environment | Dry, Out of Direct Sunlight, 60-80°F |
| Material Temperature During Application | 50-70°F and 5°F Above Dew Point |
| Minimum Substrate Temperature During Application | 5°F Above Dew Point |
| Recommended Application Temperature | 60-90°F, <80% RH (Relative Humidity) |

Average Application Time

| Ambient Temperature | 60-90°F, <80% RH | 50°F, 50% RH | 70°F, 50% RH | 100°F, 50% RH |
|----------------------------------|------------------|--------------|--------------|---------------|
| Working Time | 30 min | 40 min | 30 min | 20 min |
| Recoat Window | 12 hrs. | 24 hrs. | 12 hrs. | 10 hrs. |
| Return to Service (Foot Traffic) | 24-36 hrs. | 36 hrs. | 24 hrs. | 24 hrs. |
| Full Cure (Vehicle Traffic) | 7 days | 7 days | 7 days | 7 days |

SURFACE PREPARATION

Before installing any coating, the substrate must be sound, meaning all necessary repairs have been completed. It must be clean, dry, and free of any contaminants, moisture, materials, or particles that may hinder material's adhesion to the substrate. If applying directly over concrete, the substrate must be mechanically profiled to ICRI CSP 3. Different projects may require a different CSP. Contact your KRETUS® Technical Representative. Adhere to International Concrete Repair Institute current standards.

MIXING AND APPLICATION

| | |
|------------------------|-------------------------------|
| Standard Kit Mix Ratio | A:B:C = 8 lbs.:8 lbs.:40 lbs. |
|------------------------|-------------------------------|

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|---|--|
| Urethane Polymer Concrete Colorant | 4 oz per standard kit |
| Accelerant (at 70°F, decreases working time by 5 min, return to service by 1 hr.) | 1-2 oz Poly Accelerant per standard kit |
| 30-mesh or F-grade Industrial Sand for crack patching | 10-15 lbs. per standard kit |
| Mixing Drill | High-speed, high-torque drill with Jiffler double-bladed mixer |
| Mixing Directions | Mix Part A for 15 seconds. Add Part B and mix for 30 seconds. Slowly add Part C and continue mixing for 2 minutes or until color and consistency are uniform. |
| Mixing Directions With Colorant | Mix Part A and color for 15 seconds. Add Part B and mix for 30 seconds. Slowly add Part C and continue mixing for 2 minutes or until color and consistency are uniform. |
| Mixing Directions With Anti-Slip, Color Quartz, or Sand | Mix Part A for 15 seconds. Add Part B and mix for 30 seconds. Slowly add Part C and continue mixing for 2 minutes. Add additive and continue to mix for 30 seconds or until color and consistency are uniform. |

Coverage Rates per Standard Kit

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| Crack and Joint Repair, 1/4" wide by 1/4" deep | 307 LF/gal. |
| Crack and Joint Repair | See Joint Filler Rates (kretus.com/joint-filler-rates). |
| Base or Body Coat, 1/8" | 60 SF/kit |
| Base or Body Coat, 3/16" | 35 SF/kit |
| Base or Body Coat, 1/4" | 25 SF/kit |

Premeasure components to make sure you are using the correct mix ratio. Combine components according to mix instructions. Continue mixing until the coating's consistency is uniform. The coating must remain thoroughly mixed during the application.

Keep a wet edge while applying product. Wear spiked shoes when walking on material. For more applications and coverage rates, see KRETUS® General Overview (kretus.com/product-general-overviews).

PROPERTIES WHEN FULLY CURED

| PROPERTIES | TEST METHOD | TYPICAL VALUES |
|------------------------------------|-------------|----------------------------|
| Abrasion Resistance | ASTM D4060 | 70 mg loss |
| Abrasion Resistance with Anti-Slip | ASTM D4060 | 40-60 mg loss |
| Adhesion Strength | ASTM D4541 | >500 psi, concrete failure |
| Compressive Strength | ASTM C579 | 7,000 psi |
| Flame Spread/ Critical Flux | ASTM E648 | Class 1 |
| Flame Spread/ Rate of Burning | ASTM D635 | Self-extinguishing |
| Flexural Modulus of Elasticity | ASTM C580 | 3.5 x 10 ⁶ psi |
| Flexural Strength | ASTM C580 | 2,700 psi |
| Hardness (Shore D) | ASTM D2240 | 80 |
| Impact Resistance | ASTM D2794 | >160 in-lbs. |
| Indoor Air Quality | CA 01350 | Compliant |
| Linear Shrinkage | ASTM C531 | 0.20% |
| Microbial Resistance | ASTM G21 | Passes, 0 growth |
| Moisture Vapor Permeance | ASTM E96 | 0.15 perms |
| Tensile Strength | ASTM C307 | 2,000 psi |

| | | |
|---|-----------|---------------------------------|
| Thermal Coefficient of Linear Expansion | ASTM C531 | 2.0 x 10 ⁻⁵ in/in/°F |
| Thermal Shock Resistance | ASTM C484 | 50 cycles, no cracking |
| Water Absorption | ASTM C413 | <0.10% |

CHEMICAL AND STAIN RESISTANCE

1 = Best for chemical resistance: Chemical has no adverse effects on fully cured coating; remove within 24 hours.

2 = Low potential for stain: Chemical has no adverse effects on fully cured coating if removed within 24 hours.

3 = High potential for stain or degradation: Chemical must be removed within 24 hours of exposure.

NR = Not recommended

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|---|----|---|----|
| Acetic Acid (Component off Vinegar), 10% | 1 | Methanol | NR |
| Acetic Acid, 30%..... | 2 | Methylene Chloride | 3 |
| Acetone..... | 1 | MIBK (Methyl Isobutyl Ketone)..... | NR |
| Ammonia, 30%..... | 1 | Mineral Oil | 1 |
| Ammonium Hydroxide, 30% | 1 | Motor Oil, SAE 30 | 1 |
| Antifreeze (Coolant)..... | 1 | Mineral Spirits..... | NR |
| Benzene (Component Of Crude Oil) | 3 | Mustard, Yellow | 3 |
| Benzyl Alcohol | 3 | Nitric Acid, 30% | 2 |
| Betadine, 11% | 2 | Oleic Acid | 1 |
| Boric Acid, 4% | 3 | Oxalic Acid, 10%..... | 1 |
| Brake Fluid, DOT 3 | 1 | Phosphoric Acid, 20% | 1 |
| Chromic Acid, 10%..... | 1 | Potassium Hydroxide, 30% | |
| Chromic Acid, 30%..... | 1 | (Alkaline Batteries, Soap Manufacturing)..... | 1 |
| Citric Acid, 30%..... | 1 | Propylene Glycol | 1 |
| Ethanol, 95%..... | 3 | Silver Nitrate, 20% (Photo Labs) | 3 |
| Ethyl Acetate, 99% (Food/Beverage Facility) | NR | Sodium Chloride, 20%..... | 1 |
| Formaldehyde, 37% | 2 | Sodium Hydroxide (Caustic Soda), 50% | 1 |
| Premium Gasoline..... | 1 | Sodium Hypochlorite (Bleach), 10% | 2 |
| Hydraulic Fluids | | Sodium Hypochlorite (Bleach), 30%..... | 2 |
| (Machinery, Automobile, Aviation) | 1 | Sodium Persulfate | |
| Hydrochloric Acid, 10%..... | 1 | (Bleaching and Oxidizing Agent)..... | 2 |
| Hydrochloric Acid, 30%..... | 1 | Sulfuric Acid, 37% (Battery Acid) | 1 |
| Hydrofluoric Acid, 10% | 1 | Tannic Acid, 20%..... | 2 |
| Hydrofluoric Acid, 30% | 1 | Tartaric Acid, 10% | 1 |
| Hydrogen Peroxide, 10% | 1 | Transmission Fluid | 1 |
| Hydrogen Peroxide, 50% | 3 | Urine, Dog or Cat | 1 |
| Iodine, 2%..... | 3 | Urea (Nitrogen-Rich Fertilizer)..... | 1 |
| Isopropyl Alcohol | 1 | Vinegar, Distilled | 1 |
| Jet Fuel..... | 1 | Water (Hard Water from Well) | 1 |
| Lactic Acid, 30% (Dairy Facility)..... | 1 | Whisky | 1 |
| Lime Juice | 1 | Wine, Cabernet Sauvignon | 1 |
| Magnesium Hydroxide..... | 1 | Xylene | 3 |
| MEK (Methyl Ethyl Ketone) | NR | | |

Pigments or colorants may affect working times, reduce chemical resistance, or increase potential for stain. Coatings tested at ambient temperature over 1-3 days' exposure to chemical. To ensure desired results are achieved, products should be tested on site before installation.

DISCLAIMER: The information contained in this document is intended for use by KRETUS®-qualified and -trained professionals. This is not a legally binding document and does not release the specifier from their responsibility to apply materials correctly under the specific conditions of the construction site and the intended results of the construction process. The most current valid standards for testing and installation, acknowledged rules of technology, as well as KRETUS® technical guidelines must always be adhered to. The steps given in this document and other mentioned documents are critical to the success of your project.